AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method for preparing managanese-based nitride ~~expressed by the following formula (1) having a cubic antiperovskite structure,~~ the method comprising:

placing ~~wherein~~ a mixture of Mn_2N and Cu ~~is placed~~ in a quartz tube~~,~~ ~~evacuated, sealed, and sintered at 800-900°C for 40-60 hr.~~;

evacuating the tube;

sealing the tube; and

sintering the mixture at a temperature of from about 800°C to about 900°C to generate a manganese-based nitride having a cubic antiperovskite structure.

~~$CuNMn_3$ (1)~~

2. (Currently Amended) The method ~~for preparing manganese based nitride according to~~ of claim 1, wherein ~~amount of~~ Mn_2N is included in the mixture ~~used in the~~ in a molar ratio of 1.45-1.55 per mole of copper.

3. (Currently Amended) The method ~~for preparing manganese based nitride according to~~ of claim 1, further comprising:

heating the mixture at ~~wherein the temperature is raised with~~ a rate of 40-50°C/h ~~in the sintering process~~ after sealing the tube.

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4. (Currently Amended) The method ~~for preparing manganese based nitride according to~~ of claim 1, wherein said mixture is wrapped with ~~titanium~~ tantalum foil before being placed into the quartz tube.

5. (Currently Amended) A manganese-based nitride of the formula $CuNMn_3$ ~~(1) prepared according to one of claims 1 to 4 has~~ and having a temperature coefficient of resistivity of 40-50 ppm/K and a cubic antiperovskite structure.

~~$CuNMn_3$ (1)~~

6. (New) The method of claim 1, wherein the manganese-based nitride has the formula $CuNMn_3$.

7. (New) The method of claim 1, wherein sintering the mixture is performed for a time of between 40 hours and 60 hours.

8. (New) A manganese-based nitride material comprising:

copper, nitrogen, and manganese according to the formula, $CuNMn_3$;

wherein the material has a cubic antiperovskite structure; and

wherein the material has a temperature coefficient of resistivity of between about 40 ppm/K and 50 ppm/K over a temperature range of about 160 K to about 350 K.

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9. (New) The manganese-based nitride material of claim 8, wherein the cubic antiperovskite structure of the material has a space group *Pm3m* and a lattice parameter of a=3.90465(9) Å.

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